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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/781,329	02/18/2004	Yvon Gris	S1022.81048US01	9448

7590 01/10/2006

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EXAMINER	
GUERRERO, MARIA F	

ART UNIT	PAPER NUMBER
2822	

DATE MAILED: 01/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/781,329	GRIS, YVON	
	Examiner	Art Unit	
	Maria Guerrero	2822	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *08 December 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *10-39* is/are pending in the application.

4a) Of the above claim(s) *16-39* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *10-15* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☒ Certified copies of the priority documents have been received in Application No. 08/969800.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. This Office Action is in response to the Preliminary Amendment filed October 6, 2004 and the Election filed December 8, 2005.

Status of Claims

2. Claims 1-9 are canceled. Claims 10-39 are pending.

Election/Restrictions

3. Applicant's election of Species A1, claims 10-15 in the reply filed on December 8, 2005 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

4. Claims 16-39 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on December 8, 2005.

Priority

5. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d). The certified copy has been filed in parent Application No. 08/969,800, filed on November 13, 1997.

Information Disclosure Statement

6. The information disclosure statement filed October 6, 2004 has been considered.

Specification

7. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Objections

8. Claims 11-15 are objected to because of the following informalities: claims 11-15 recite "a method according to claim 10"; claim 10 recites "a central base bipolar transistor". Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

9. Claims 10-15 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 10 recites the limitation "the insulated gates, the spacers" in line 10. There is insufficient antecedent basis for this limitation in the claim.

Claim 10 recites the limitation "the first silicon layer" in lines 18 and 30. There is insufficient antecedent basis for this limitation in the claim.

Claim 10 recites the limitation "the extrinsic base" in line 19. There is insufficient antecedent basis for this limitation in the claim.

Claim 10 recites the limitation "the second encapsulation layers" in line 30. There is insufficient antecedent basis for this limitation in the claim.

Claim 10 recites the limitation "the areas" in line 26. There is insufficient antecedent basis for this limitation in the claim.

Claims 12 and 13 recite the limitation "the first silicon layer" in line 1. There is insufficient antecedent basis for this limitation in the claims.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

10. Claims 10-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsubone et al. (U.S. 5,100,815)(cited on IDS)(as understood by the examiner in view of the rejection under 35 U.S.C. 112, second paragraph).

11. Tsubone et al. shows a central base bipolar transistor including a complementary MOS transistor and a NPN type bipolar transistor (Abstract, Figs. 1A-2W). Tsubone et al. teaches the central base bipolar transistor having a N-type epitaxial layer on a P-type substrate, a buried layer, a thick oxide layer, a collector region, a base-emitter region, insulated gates, spacers, source and drains (Figs. 1A-2W, col. 2, lines 65-68, col. 3,

lines 1-68, col. 4, lines 63-68, col. 6, lines 1-15, col. 9, lines 5-65). Tsubone et al. describes a first polysilicon layer and an oxide layer being formed and etched, the silicide layer, the planarized insulating layer and the metal layers being formed to complete the central base bipolar transistor (Figs. 1A-2W, col. 4, lines 63-68, col. 5, lines 1-40, col. 9, lines 5-65).

12. Tsubone et al. discloses the second silicon nitride layer and the second layer of polysilicon being deposited and etched leaving spacers in the vertical portions (Fig. 1G-1L, 2N-2T, col. 4, lines 63-68, col. 5, lines 1-8). Tsubone et al. shows the protection layer including a silicon oxide layer having a thickness of 150 Angstroms and a silicon nitride layer having a thickness of 100 Angstroms (col. 3, lines 35-43). Tsubone et al. shows the polysilicon layer having a thickness of 3000 Angstroms and the oxide layer having a thickness of 1000 Angstroms (col. 3, lines 45-65, col. 4, lines 62-68).

13. Tsubone et al. does not specifically describe all the method steps as claimed. However, there is not be given any patentable weight to the method steps because product-by-process claims are limited and defined by the process; determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior art product was made by a different process. In re Hirao and Sato et al., 190 USPQ 15 at 17 (CCPA 1976 (footnote 3). See also IN re Brown and Saffer, 173 USPQ 685 (CCPA 1972); In re Luck and Gainer, 177 USPQ 523 (CCPA 1973); In re

Fessmann, 180 USPQ 324 (CCPA 1974); In re Marosi et al., 218 USPQ 289 (Fed. Cir. 1983); In re Thorpe, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985).

14. Regarding the specific thickness claimed, one of ordinary skill in the art would have found it prima facie obvious at the time of the invention to include the specific thickness merely by following the teachings of the reference. In this regard, it is well settled that it is not inventive to determine (by mere routine experimentation) the optimum values of a result-effective variable. In re Peterson, 315 F.3d 1325, 1330, 65 USPQ2d 1379, 1382 (Fed. Cir, 2003)("The normal desire of scientist or artisans to determine where in a disclosed set of percentage ranges is the optimum combination of percentages."); In re Boesch, 617 F.2d 272, 276, 205 USPQ 215, 219 (CCPA 1980) ("Discovery of an optimum value of a result effective variable in a known process is ordinarily within the skill of the art."); In re Aller 220 F. 2d 454, 456, 105 USPQ 233, 235, (CCPA 1955)("Where the general conditions of a claim are discloses in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation.")

15. Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to recognize that the structure taught by Tsubone et al. would correspond with the structure claimed because there is not any unobvious difference between the claimed product and the prior art product. In re Marosi, 710 F.2d 798, 802, 218 USPQ 289, 292 (Fed. Cir. 1983).

16. In addition, the Patent Office bears a lesser burden of proof in making out a case of prima facie obviousness for product-by-process claims because of their peculiar nature" than when a product is claimed in the conventional fashion. In re Fessmann,

489 F.2d 742, 744, 180 USPQ 324, 326 (CCPA 1974). Once the examiner provides a rationale tending to show that the claimed product appears to be the same or similar to that of the prior art, although produced by a different process, the burden shifts to applicant to come forward with evidence establishing an unobvious difference between the claimed product and the prior art product. In re Marosi, 710 F.2d 798, 802, 218 USPQ 289, 292 (Fed. Cir.1983).

Conclusion

17. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Gris (US 6,376,883) (same Applicant), Lien (US 5,470,766), Sato (US 5,504,018) and Anmo (US 5,665,615) teach several embodiments related to applicant's disclosure.

18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Maria Guerrero whose telephone number is 571-272-1837.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Zandra Smith can be reached on 571-272-2429. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

December 27, 2005

MARIA F. GUERRERO
PRIMARY EXAMINER